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APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,194	08/16/2001	Hideki Yamamoto	107314-00025	9215

1333 7590 06/28/2004

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JUL 1 - 2004

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EXAMINER
SHENG, TOM V

ART UNIT	PAPER NUMBER
2673	12

DATE MAILED: 06/28/2004

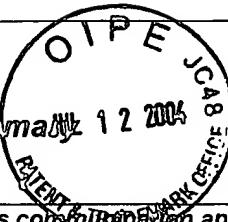
Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary



Application No.	Applicant(s)	
09/930,194	YAMAMOTO, HIDEKI	
Examiner	Art Unit	
Tom V Sheng	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

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- 4) Claim(s) 5 and 13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 5 and 13 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8. | 6) <input type="checkbox"/> Other: ____. |

FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 107314-00025	SERIAL NO. 09/930,194
O I P E JUL 12 2004 P A T E N T & T R A D E M A R K O F F I C E C 3 4 O L I S T O F R E F E R E N C E S C I T E D B Y A P P L I C A N T M A R 0 1 2004 L E T T E R U S E S E V E R A L S H E E T S I F N E C E S S A R Y		APPLICANT YAMAMOTO		
		FILING DATE August 16, 2001	GROUP 2673	

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA						RECEIVED MAR 02 2004
AB			RECEIVED			Technology Center 2600
AC						
AD			JUL 14 2004			
AE			Technology Center 2600			
AF						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES NO PART.
TS	AG	JP 06-165205	6/10/94	Japan	—	—	X
TS	AH	JP 08-186833	7/16/96	Japan	→	→	X
TS	AI	JP 07-143358	6/2/95	Japan	—	—	X
	AJ						
	AK						
	AL						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

TS	AM	Japanese Office Action for Application No. JP 2001-228996 and English translation dated December 2, 2003
	AN	
	AO	

EXAMINER <i>Tom Shay</i>	DATE CONSIDERED <i>6/21/04</i>
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaburagi et al. (US 6,160,532) in view of Takayama (US 6,317,157 B1).

As for claim 13, Kaburagi teaches a liquid crystal projector (liquid crystal display device appropriate for a projector; figure 1) comprising a first digital gamma correction circuit (secondary gamma correction circuit 32) to make input signal level-to-illuminance characteristics linear (figures 5 and 6; column 12, lines 16-25), wherein a second digital gamma correction circuit for changing gamma correction characteristics (primary gamma correction circuit 24 implemented in a RAM; column 11, lines 10-33) with variable input-output characteristics (RAM data can be changed either in the factory or by the user; figure 2, column 11, lines 42-52) is provided in a stage preceding the first digital gamma correction circuit (primary gcc 24 precedes secondary gcc 32 as shown in figure 1), in which the input-output characteristics of the second digital gamma correction circuit are varied according to a characteristic changing instruction from a user (accomplished by the user operating a control unit).

Art Unit: 2673

Kaburagi does not teach that the input-output characteristics of the second digital gamma correction circuit are indicated by an exponential equation whose exponent is variable.

Takayama also teaches two stages gamma corrections similar to Kaburagi. In the background of the invention, Takayama specifically teaches gamma correction or inverse gamma correction in the form of an exponential equation (with γ or $1/\gamma$ as the exponent; see column 2, line 46 to column 3, line 39). One of ordinary skill in the art would know that a change in gamma correction corresponds to a change in the value of the gamma.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the input-output characteristics of the primary gamma correction circuit 24 of Kaburagi as an exponential equation as taught by Takayama with the changeable feature of the RAM thus effectively making the exponent (γ) variable, because a change in gamma correction characteristics naturally corresponds to a change in the gamma the exponent.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaburagi and Takayama as applied to claim 13 above, and further in view of Admitted Art.

Claim 5 is regarding a liquid crystal projector similar to claim 13, except that the succeeding gamma correction circuit is an analog gamma correction circuit instead of a digital gamma correction circuit.

Admitted Art (figures 1 and 7) teaches a conventional liquid crystal projector, which can comprise either an analog gamma correction circuit or a digital gamma correction circuit. One of ordinary skill in the art would know that there is no patentable distinction between the two implementations, as both are commonly used.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use an analog secondary gamma correction circuit, as a matter of engineering or cost preference.

Response to Arguments

4. Applicant's arguments filed on 4/27/2004 have been fully considered but they are not persuasive.

Applicants argue that the cited prior arts fails to disclose or suggest at least the limitation of "a digital gamma correction circuit for changing gamma correction characteristics ... according to a characteristics changing instruction from a user" and that the correction circuit 24 of Kaburagi is not designed to change its input/output characteristics based on characteristics changing instructions from a user, the examiner disagrees since Kaburagi teaches the primary gamma correction circuit 24 that reads on claimed preceding digital gamma correction circuit and that a user can change the RAM data (the correction circuit 24) by operating a control unit.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V Sheng whose telephone number is (703) 305-6708. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Sheng
June 22, 2004



KENT CHANG
PRIMARY EXAMINER

NOTICE OF OFFICE PLAN TO CEASE SUPPLYING COPIES OF CITED U.S. PATENT REFERENCES WITH OFFICE ACTIONS, AND PILOT TO EVALUATE THE ALTERNATIVE OF PROVIDING ELECTRONIC ACCESS TO SUCH U.S. PATENT REFERENCES

Summary

The United States Patent and Trademark Office (Office or USPTO) plans in the near future to: (1) cease mailing copies of U.S. patents and U.S. patent application publications (US patent references) with Office actions except for citations made during the international stage of an international application under the Patent Cooperation Treaty and those made during reexamination proceedings; and (2) provide electronic access to, with convenient downloading capability of, the US patent references cited in an Office action via the Office's private Patent Application Information Retrieval (PAIR) system which has a new feature called "E-Patent Reference." Before ceasing to provide copies of U.S. patent references with Office actions, the Office shall test the feasibility of the E-Patent Reference feature by conducting a two-month pilot project starting with Office actions mailed after December 1, 2003. The Office shall evaluate the pilot project and publish the results in a notice which will be posted on the Office's web site (www.USPTO.gov) and in the Patent Official Gazette (O.G.). In order to use the new E-Patent Reference feature during the pilot period, or when the Office ceases to send copies of U.S. patent references with Office actions, the applicant must: (1) obtain a digital certificate from the Office; (2) obtain a customer number from the Office, and (3) properly associate applications with the customer number. The pilot project does not involve or affect the current Office practice of supplying paper copies of foreign patent documents and non-patent literature with Office actions. Paper copies of references will continue to be provided by the USPTO for searches and written opinions prepared by the USPTO for international applications during the international stage and for reexamination proceedings.

Description of Pilot Project to Provide Electronic Access to Cited U.S. Patent References

On December 1, 2003, the Office will make available a new feature, E-Patent Reference, in the Office's private PAIR system, to allow more convenient downloading of U.S. patents and U.S. patent application publications. The new feature will allow an authorized user of private PAIR to download some or all of the U.S. patents and U.S. patent application publications cited by an examiner on form PTO-892 in Office actions, as well as U.S. patents and U.S. patent application publications submitted by applicants on form PTO/SB08 (1449) as part of an IDS. The retrieval of some or all of the documents may be performed in one downloading step with the documents encoded as Adobe Portable Document format (.pdf) files, which is an improvement over the current page-by-page retrieval capability from other USPTO systems.

Steps to Use the New E-Patent Reference Feature During the Pilot Project and Thereafter

Access to private PAIR is required to utilize E-Patent Reference. If you don't already have access to private PAIR, the Office urges practitioners, and applicants not represented by a practitioner, to take advantage of the transition period to obtain a no-cost USPTO Public Key Infrastructure (PKI) digital certificate, obtain a USPTO customer number, associate all of their pending and new application filings with their customer number, install no-cost software (supplied by the Office) required to access private PAIR and E-Patent Reference feature, and make appropriate arrangements for Internet access. The full instructions for obtaining a PKI digital certificate are available at the Office's Electronic Business Center (EBC) web page at: <http://www.uspto.gov/ebc/downloads.html>. Note that a notarized signature will be required to obtain a digital certificate.

To get a Customer Number, download and complete the Customer Number Request form, PTO-SB125, at: <http://www.uspto.gov/web/forms/sb0125.pdf>. The completed form can then be transmitted by facsimile to the Electronic Business Center at (703) 308-2840, or mailed to the address on the form. If you are a registered attorney or patent agent, then your registration number must be associated with your customer number. This is accomplished by adding your registration number to the Customer Number Request form. A description of associating a customer number with an application is described at the EBC web page at: http://www.uspto.gov/ebc/registration_pair.html.

The E-Patent Reference feature will be accessed using a new button on the private PAIR screen. Ordinarily all of the cited U.S. patent and U.S. patent application publication references will be available over the Internet using the Office's new E-Patent Reference feature. The size of the references to be downloaded will be displayed by E-Patent Reference so the download time can be estimated. Applicants and registered practitioners can select to download all of the references or any combination of cited references. Selected references will be downloaded as complete documents as Adobe Portable Document Format (.pdf) files. For a limited period of time, the USPTO will include a copy of this notice with Office actions to encourage applicants to use this new feature and, if needed, to take the steps outlined above in order to be able to utilize this new feature during the pilot and thereafter.

During the two-month pilot, the Office will evaluate the stability and capacity of the E-Patent Reference feature to reliably provide electronic access to cited U.S. patent and U.S. patent application publication references. While copies of U.S. patent and U.S. patent application publication references cited by examiners will continue to be mailed with Office actions during the pilot project, applicants are encouraged to use the private PAIR and the E-Patent Reference feature to electronically access and download cited U.S. patent and U.S. patent application publication references so the Office will be able to objectively evaluate its performance. The public is encouraged to submit comments to the Office on the usability and performance of the E-Patent Reference feature during the pilot. Further, during the pilot period registered practitioners, and applicants not represented by a practitioner, are encouraged to experiment with the feature, develop a proficiency in using the feature, and establish new internal processes for using the new access to the cited U.S. patents and U.S. patent application publications to prepare for the anticipated cessation of the current Office practice of supplying copies of such cited

references. The Office plans to continue to provide access to the E-Patent Reference feature during its evaluation of the pilot.

Comments

Comments concerning the E-Patent Reference feature should be in writing and directed to the Electronic Business Center (EBC) at the USPTO by electronic mail at eReference@uspto.gov or by facsimile to (703) 308-2840. Comments will be posted and made available for public inspection. To ensure that comments are considered in the evaluation of the pilot project, comments should be submitted in writing by January 15, 2004.

Comments with respect to specific applications should be sent to the Technology Centers' customer service centers. Comments concerning digital certificates, customer numbers, and associating customer numbers with applications should be sent to the Electronic Business Center (EBC) at the USPTO by facsimile at (703) 308-2840 or by e-mail at EBC@uspto.gov.

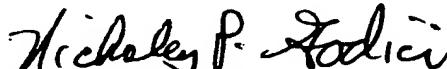
Implementation after Pilot

After the pilot, its evaluation, and publication of a subsequent notice as indicated above, the Office expects to implement its plan to cease mailing paper copies of U.S. patent references cited during examination of non provisional applications on or after February 2, 2004; although copies of cited foreign patent documents, as well as non-patent literature, will still be mailed to the applicant until such time as substantially all applications have been scanned into IFW.

For Further Information Contact

Technical information on the operation of the IFW system can be found on the USPTO website at <http://www.uspto.gov/web/patents/ifw/index.html>. Comments concerning the E-Patent Reference feature and questions concerning the operation of the PAIR system should be directed to the EBC at the USPTO at (866) 217-9197. The EBC may also be contacted by facsimile at (703) 308-2840 or by e-mail at EBC@uspto.gov.

Date: 12/1/03



Nicholas P. Godici
Commissioner for Patents



United States Patent and Trademark Office

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Total Assignments: 1**Patent #:** NONE **Issue Dt:** **Application #:** 09930194 **Filing Dt:** 08/16/2001**Publication #:** 20020030651 **Pub Dt:** 03/14/2002**Inventor:** Hideki Yamamoto**Title:** LIQUID CRYSTAL DISPLAY DEVICE WITH GAMMA CORRECTION**Assignment: 1****Reel/Frame:** 012301/0412 **Recorded:** 11/08/2001 **Pages:** 2**Conveyance:** ASSIGNMENT OF ASSIGNEES INTEREST (SEE DOCUMENT FOR DETAILS).**Assignor:** YAMAMOTO, HIDEKI**Exec Dt:** 10/01/2001**Assignee:** SANYO ELECTRIC CO., LTD.505, KEIHANHONDORI 2-CHOME
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Yamamoto (43) Pub. Date: Mar. 14, 2002

(54) DISPLAY DEVICE AND LIQUID CRYSTAL PROJECTOR

Publication Classification

(76) Inventor: Hideki Yamamoto, Kyoto City (JP)

(51) Int. Cl. 7 G09G 3/36

(52) U.S. Cl. 345/87

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(57) ABSTRACT

(21) Appl. No.: 09/930,194

In a digital device comprising an analog gamma correction circuit, a gamma correction circuit for changing gamma correction characteristics whose input-output characteristics are variable is provided in a stage preceding an analog gamma correction circuit. The input-output characteristics of the gamma correction circuit for changing gamma correction characteristics are changed so that gamma correction characteristics are changed.

(22) Filed: Aug. 16, 2001

(30) Foreign Application Priority Data

Aug. 23, 2000 (JP) 2000-252865

